

Name _____

Date _____

5-37 Simplifying Radical Expressions

Solve each problem and write the value of each letter in the spaces after the problem. To complete the statement below, write the letter above its corresponding number. The first problem is done for you.

1. $\sqrt{48} = N\sqrt{S}$

N = 4

S = 3

2. $\sqrt{56} = D\sqrt{H}$

D = _____

H = _____

3. $\sqrt{49} = R$

R = _____

4. $\sqrt{75} = A\sqrt{S}$

A = _____

S = _____

5. $\sqrt{I} = I$

I = _____

6. $\sqrt{250} = A\sqrt{C}$

A = _____

C = _____

7. $\sqrt{27} = S\sqrt{S}$

S = _____

8. $\sqrt{81} = T$

T = _____

9. $\sqrt{135} = S\sqrt{Y}$

S = _____

Y = _____

10. $\sqrt{50} = A\sqrt{D}$

A = _____

D = _____

11. $\sqrt{M} = S\sqrt{D}$

M = _____

S = _____

D = _____

12. $\sqrt{52} = D\sqrt{F}$

D = _____

F = _____

13. $\sqrt{121} = G$

G = _____

14. $\sqrt{384} = O\sqrt{E}$

O = _____

E = _____

15. $\sqrt{144} = L$

L = _____

16. $\sqrt{68} = D\sqrt{W}$

D = _____

W = _____

17. $\sqrt{171} = S\sqrt{B}$

S = _____

B = _____

18. $\sqrt{U} = N$

U = _____

N = _____

19. $\sqrt{72} = E\sqrt{D}$

E = _____

D = _____

20. $\sqrt{T} = S$

T = _____

S = _____

		N				S						S
7	6	4	6	2	6	3	10	5	7	9	6	3

		S				S						
13	1	7	3	9	16	3	6	2	9	14	6	

						S						
7	5	2	1	10	5	12	3	15	18	19	8	12

						S						
9	14	5	9	17	6	3	9	1	12	12		

	S											
16	3	6	9	8	2	5	15					

5-38 Adding, Subtracting, Multiplying, and Dividing Radical Expressions

Evaluate each expression. The answers for the expressions are in the box. Write the answer in the space provided. **Note:** Each answer is the solution to at least one problem.

1. $3\sqrt{5}\sqrt{3} =$ _____

11. $\sqrt{2}\sqrt{3} =$ _____

2. $\sqrt{81} - \sqrt{16} =$ _____

12. $\sqrt{15}\sqrt{5} =$ _____

3. $\frac{\sqrt{300}}{2} =$ _____

13. $\sqrt{90} + \sqrt{250} =$ _____

4. $\frac{\sqrt{72}}{3} =$ _____

14. $\sqrt{9} + \sqrt{16} =$ _____

5. $\sqrt{27} + \sqrt{12} =$ _____

15. $\frac{6\sqrt{6}}{\sqrt{8}} =$ _____

6. $\frac{\sqrt{75}}{\sqrt{3}} =$ _____

16. $\sqrt{9+16} =$ _____

7. $\sqrt{3}\sqrt{9} =$ _____

17. $(\sqrt{7})^2 =$ _____

8. $\sqrt{54} - \sqrt{24} =$ _____

18. $4\sqrt{2} - \sqrt{8} =$ _____

9. $\frac{9\sqrt{5}}{\sqrt{3}} =$ _____

19. $2\sqrt{40} + \sqrt{160} =$ _____

10. $\sqrt{15} + \sqrt{60} =$ _____

20. $\frac{8}{\sqrt{8}} =$ _____

$\sqrt{6}$	5	$5\sqrt{3}$	$3\sqrt{15}$
$2\sqrt{2}$	$3\sqrt{3}$	7	$8\sqrt{10}$